ABSTRACT OF THE DISCLOSURE

There is provided a method for automatically registering an IP address and domain name of a host in a network using the IP Version 6 (IPv6) protocol. The IP address and domain name automatic registration method includes: multicasting an NS message, which includes the IP address and domain name of the host, performing a Duplicate Address Detection (DAD) process, and if no other host exists on the same network and uses the IP address or domain name of the host, automatically registering the IP address or domain name in a DNS server or in the respective storage areas of the plurality of other hosts. Therefore, the IPv6 address and domain name of each host can be automatically stored and managed without duplication.